



# UNITED STATES PATENT AND TRADEMARK OFFICE

*een*

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,408	12/23/2003	Satoru Komatsu	107355-00100	9618

7590 03/26/2007  
ARENT FOX KINTNER PLOTKIN & KAHN, PLLC  
Suite 400  
1050 Connecticut Avenue  
Washington, DC 20036-5339

EXAMINER
----------

A, MINH D

ART UNIT	PAPER NUMBER
----------	--------------

2821

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/26/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/743,408

Applicant(s)

KOMATSU ET AL.

Examiner

Minh D. A

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6 is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

**Claim Rejections - 35 USC § 102**

1 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 4-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishizaka et al (US 5, 510,803).

Regarding claim 1, Ishizaka discloses in figures 2-5, a dual polarization planar antenna comprising: a radiation element (3') provided on a dielectric substrate (6 and 9); a grounding conductor (7') provide on the dielectric substrate(6 and 9) and surrounding a periphery of an outer edge portion of the radiation element(3') at a position spaced away outwardly from the outer edge portion; and a conductive member (1') provided on a surface the dielectric substrate (6 and 9) at a position spaced away outwardly from an outer edge portion of the grounding conductor(conductor(7')), wherein the radiation element(3'), the grounding conductor(7'), and the conductive member (1)) are provided on the same surface of the dielectric substrate (6 and 9). Col.4, lines 20-67 to col.7, lines 1-10.

Regarding claim 2, Ishizaka discloses in figures 2-5, a dual polarization planar antenna comprising the conductive member (1) surrounds the periphery of the edge portion of the grounding conductor (7') at a position spaced away outwardly from the outer edge portion.

Art Unit: 2821

Regarding claim 4, Ishizaka discloses in figures 2-5, a dual polarization planar antenna comprising the conductive member (1) is film. Col.4, lines 20-67 to col.6, lines 1-67.

Regarding claim 5, Ishizaka discloses in figures 2-5, a linear antenna (slot antenna (24)) provided at a position spaced away from the conductive member(1) and at the opposite side of the grounding conductor(7').

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over by Ishizaka et al (US 5, 510,803) in view of Harada (US 5, 124, 714).

Regarding claim 3, figures 1-2, Walton discloses the metal sheet is conductive. However, Walton does not disclose the conductive member is circular-shape.

Harada disclose the conductive member (12) is the circular shape. See figures 1-2, col.3, lines 1-60.

It would have been an obvious to one of ordinary skill in the art at the time the invention was made to employ the conductive member is circular shape such as that suggested by Harada in slot antenna of Walton to provide a radiating signal, since the

Art Unit: 2821

conductive member for receiving a different frequency signal has been well known in the art as evidenced by the teachings of Harada.

***Allowable Subject Matter***

5. Claim 6 is allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Prior art does not teach that, a pair of conductive members provided on the dielectric substrate at a position spaced away outwardly from an outer edge portion of the grounding conductor so as to oppose each other, wherein the radiation element, the grounding conductor, and the pair of conductive member are provided on the same surface of the dielectric substrate.

***Citation of relevant prior art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art Marumoto et al (U.S. Patent No. 6,556,168) discloses an antenna device.

Prior art Kalt et al (U.S. Patent No. 6,057,814) discloses an antenna.

***Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Dieu A whose telephone number is (571)

Art Unit: 2821

272-1817. The examiner can normally be reached on M-F (5:30 AM-2: 45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Owens Douglas W can be reached on (571) 272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner

Minh A

Art Unit 2821

3/19/07

  
SHIH-CHAO CHEN  
PRIMARY EXAMINER